

# Biological and Medical Aspects of Electromagnetic Fields

**Biological and Medical Aspects of Electromagnetic Fields** examines potential health hazards, exposure standards, and medical applications of electromagnetic (EM) fields.

The second volume in the bestselling and newly revised *Handbook of Biological Effects of Electromagnetic Fields, Third Edition*, this book draws from the latest studies on the effects of exposure to electric and magnetic fields. In addition to extensive reviews of physiological effects, the book contains now separate reviews of behavioral and cognitive responses to various exposures. The book also describes an approach to setting standards for exposure limits and explores a few of the beneficial uses of EM fields in medical applications, both diagnostics and in treatment.

## New in This Edition:

- Reviews the recent results of epidemiological studies for both EM and radio frequency (RF) exposures
- Includes expanded reviews of the effects of extra-low frequencies (ELF) and RF fields—including electric shock and trauma—on cells and tissues, animals, and humans
- Adds specific medical applications of ELF and RF fields, particularly in bone and tissue engineering
- Introduces new material on electroporation and RF imaging
- Reviews some current exposure standards, the standard-setting process, and the precautionary principle

**Biological and Medical Aspects of Electromagnetic Fields** provides a practical overview of the experiments and methods used to observe ELF and RF fields and the possible useful and hazardous implications of these observations.

## About the Handbook:

Together, the two volumes that comprise the *Handbook of Biological Effects of Electromagnetic Fields, Third Edition*, provide a comprehensive source for achieving a well-rounded understanding of electromagnetic fields and biological systems.



**CRC Press**

Taylor & Francis Group  
an informa business

[www.taylorandfrancisgroup.com](http://www.taylorandfrancisgroup.com)

6000 Broken Sound Parkway, NW  
Suite 300, Boca Raton, FL 33487

270 Madison Avenue  
New York, NY 10016

2 Park Square, Milton Park  
Abingdon, Oxon OX14 4RN, UK



[www.crcpress.com](http://www.crcpress.com)